UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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June 2, 2008

Mr. Mark Prescott, Chief
Deepwater Ports Standards Division (CG-3PSO-5)
United States Coast Guard Headquarters
2100 Second Street, S.W.
Washington, D.C. 20593

Subject: Port Dolphin Liquefied Natural Gas Deepwater Port Draft Environmental Impact Statement; Docket Number: USCG-2007-28532; CEQ: 20070463; ERP: CGD-E03017-FL

Dear Mr. Prescott:

Pursuant to Section 309 of the Clean Air Act (CAA) and Section 102(2)(C) of the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) Region 4 has reviewed the U. S. Coast Guard's (USCG) Draft Environmental Impact Statement (draft EIS) for the proposed Port Dolphin Liquefied Natural Gas (LNG) Deepwater Port. Under Section 309 of the CAA, EPA is responsible for reviewing and commenting on major federal actions significantly affecting the quality of the human environment. In addition, EPA is a cooperating agency under NEPA for this project because Port Dolphin LLC has applied to EPA for National Pollutant Discharge Elimination System (NPDES) and Clean Air Act (CAA) approvals to construct and operate this facility. EPA's review of the draft EIS also includes comments pursuant to EPA's regulatory roles.

Port Dolphin Energy LLC proposes to construct, own and operate an LNG receiving and regasification facility in the Gulf of Mexico approximately 28 miles offshore from Manatee County, Florida. The proposed port would consist of two submerged-buoy mooring points to dock two vessels concurrently while allowing them to be unloaded sequentially. Vaporization of the LNG would occur on specially designed shuttle and regasification vessels (SRVs) by means of a closed-loop Shell and Tube Vaporization (STV) system. Flexible gas pipeline risers from each mooring would connect the ships to manifolds on the seabed. The gas would flow into pipelines along the seabed extending approximately 2 miles from each mooring to a common junction and then into a 46-mile pipeline to a connection on the shore, 4 miles east of Port Manatee. The proposed peak regasification capacity would be 1.2 billion standard cubic feet of gas per day.

Alternative technologies were considered in the Draft EIS in addition to the proposed closed loop Shell and Tube Vaporization technology. While most of the technologies would utilize seawater to heat the gas, Ambient Air Vaporization (AAV) entirely avoids seawater withdrawals and air emissions. AAV was discussed, but not

carried forward for detailed evaluation. While we agree with the selection of the Shell and Tube Vaporization technology, we recommend that the AAV alternative be analyzed further in the final EIS due to its anticipated environmental and operational benefits.

EPA also requests further analysis of an additional pipeline alternative landfall route within Sarasota County to allow for a possible connection to an existing pipeline. Pipeline alternatives were considered, but only the options of routing a pipeline into Tampa Bay and into the commercial harbor of Port Manatee were considered in detail. The preferred route terminates at Port Manatee and is expected to result in adverse impacts to estuarine resources, as well as potential conflicts with navigation and another pipeline. The draft EIS has insufficient information about potential impacts of this alternative landfall route to determine whether the 2,137 acres of hardbottom habitat, 13 acres of emergent wetlands, and additional seagrass habitat impacts of the preferred pipeline route could be substantially reduced.

In summary, EPA has environmental concerns regarding this project, as proposed, and rates this draft EIS as "EC-2" (*i.e.*, environmental concerns with additional information requested in the final EIS). Our primary concerns relate to the scope of the analysis of alternatives, minimization of impacts to hard bottom marine habitat, accuracy of the analysis of seawater intake and discharge impacts to ichthyoplankton, and need to clarify the potential air quality impacts from port construction and operation. EPA supports the selection of the proposed STV port design which confines the operational components onboard specially designed ships. The proposed closed-loop STV design would result in substantial minimization of marine resource impacts and thereby reduce the overall environmental impacts of the proposed port. I have enclosed EPA's detailed comments as well as the explanation of EPA's ratings with this letter.

Thank you for the opportunity to review and comment on this draft EIS. We look forward to working with you, the USCG staff and the Port Dolphin Energy LLC to adequately address these remaining concerns. We encourage open communication between our technical staffs to achieve this goal. If you wish to discuss EPA's comments, please contact me at 404/562-9611 (mueller.heinz@epa.gov) or Ted Bisterfeld of my staff at 404/562-9621 (bisterfeld.ted@epa.gov)

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Enclosures: Detailed Comments on the draft EIS
EPA Rating System Description

cc: MARAD, Washington, DC
NMFS, St. Petersburg

ENCLOSURE: Detailed EPA Comments on Port Dolphin Draft EIS

PERMITS AND APPROVALS

Page 1-14, Table 1.1-6 1. EPA's Ocean Discharge Criteria Evaluation pertains to the Section 403(c) of the Clean Water Act.

DETAILED DESCRIPTION OF THE PROJECT AND ALTERNATIVES

1. Page 2-17, Section 2.1.1.3. EPA recommends that the mapped "Sand Resources" shown on Figure 2.1-10 be clarified to indicate they are wholly within State of Florida jurisdictional waters and, therefore, not under MMS federal jurisdiction.

2. Page 2-15 thru 18, Section 2.1.1.3. The alternative site evaluation criteria of Phases 1, 2, and 3 may be met for a pipeline landfall near the Town of Osprey in Sarasota County. A major Florida Gas Transmission pipeline terminates very near the coast and US Highway 41, as shown on Figure 2.1-8. Please provide the exact location of this terminus and clarify how a connection to this pipeline compares to the preferred alternative. A connection here may avoid and/or minimize impacts to important marine resources and the designated sand resource area, as well as reduce the engineering complexity required to bring the pipeline into Tampa Bay to Port Manatee. The Phase 2 Alternatives Analysis discussion does not indicate whether this potential connection point and other offshore port sites were considered in the analysis. A landfall for the pipeline in this vicinity potentially avoids substantial estuarine resources in lower Tampa Bay and conflict with other pipelines and vessel traffic in the Port Manatee vicinity. In addition, the required pipeline distance to Port Manatee may be less. If this pipeline landfall point is considered in the Phase 3 Pipeline Route Analysis, it potentially meets all 5 selection criteria on Page 2-17. Finally, horizontal directional drilling (HDD) technology for pipeline emplacement could be utilized and may greatly minimize impacts to beach and estuarine habitats. Development of a mitigation plan during the permit review stage is mentioned on Page 4-139. EPA recommends that it be prepared sooner and presented in the final EIS, as recommended by NEPA.

3. Page 2-24, Section 2.1.1.5. EPA and USCG staff have discussed the relevance of Ambient Air Vaporization technology for several LNG deepwater port projects, e.g., Bienville Deepwater Port and Calypso Deepwater Port. EPA has recommended that such technology be considered in detail in EISs, including the viability of the technology and its environmental merits. Therefore, we strongly recommend the USCG reconsider its decision to not consider AAV further in any detail. EPA urges that USCG fully document in the final EIS its evaluation of the viability of this technology, even if such evaluation is independent of a project-specific application. It is particularly relevant for proposed LNG projects in peninsular Florida to consider AAV with the other major technologies in a side-by-side documentation of the impacts. AAV appears particularly suitable to peninsular Florida because of the meteorological conditions.

4. Page 4-5, Section 4.1.1.1. The text indicates a total offshore pipeline length of 42 miles; however, text on page 2-34 indicates there is an additional 4 miles of pipeline (one 36 inch diameter 2- mile long flowline from each PLEM) not accounted for in this total nor in Table ES-6. EPA recommends the text be corrected to clarify that the total length is 50 miles for the project.

MARINE RESOURCES

1. Page 2-19, Section 2.1.1.3. EPA believes this section does not provide sufficient information about potential adverse impacts to the benthos to enable comparison of the three port sites independent of the pipelines. Table 4.2-1 only provides data for the proposed port site and pipeline. Having these data on benthic habitat would assume greater importance if an additional pipeline route to shore was identified to enable comparisons of pipeline route alternatives alone. It is also unclear whether Table 4.2-1 includes the benthic impact of constructing the 4 miles of flowline connectors. EPA recommends that the additional data be included in the final EIS.

2. Page 2-25, Section 2.1.1.6. Entrainment of small marine life can be reduced by the use of exclusion systems for seawater intakes. The DEIS does not identify the proposed slot size for the seawater intake, but the slot size is at least as important as the intake velocity at the screen. EPA recommends the final EIS assess the available performance of small slot size openings. Also, some text appears to be missing on the subject of biocides from this section.

3. Page 4-22, Section 4.2.1.2. We appreciate the USCG's emphasis towards minimization of impacts to marine protected areas, mostly in the Terra Ceia Aquatic Preserve. While rooted seagrass exists in that area, the direct loss and estimated indirect impacts from sediment and turbidity deposition are unclear. Also, the draft EIS does not indicate whether seagrass impacts are included in the direct effects to 6, 650 acres of soft bottom area for the total project. EPA recommends the final EIS clarify the potential magnitude of impacts to seagrass.

4. Page 4-44, thru 4-57 Section 4.2.1.7. The draft EIS estimates total hard bottom habitat impacts from construction to be 2,137 acres and to have long term duration. Because colonization of new hard structure is uncertain, it may be more appropriate to consider this loss as permanent. Further, this section mentions the HDD technique relative only to minimizing impacts to rooted seagrass. EPA recommends the final EIS more fully define the capabilities of HDD and that the USCG further consider the potential for this technology to mitigate benthic losses. In addition, we recommend that the USCG reconcile the tabulated impacts data in Table 4-5 of the Volume II Appendix G, "Biological Assessment" with the data presented in Table 4-5 on pg. 4-14 of Volume I.

5. Page 4-58 thru 4-63, Section 4.2.1.12. While the introductory paragraph of Section 4 states that each alternative is analyzed in this section, no analysis appears to be included for alternative vaporization technologies. For example, the analysis of the potential ichthyoplankton impacts addresses cooling water discharges only of the closed-loop

alternative. The draft EIS does not document the expected greater adverse impacts to icthyoplankton from the added withdrawals and discharge of seawater for open-loop gas vaporization. EPA recommends that the final EIS include such analyses, which would be similar to previously reviewed, similarly situated LNG projects.

In our efforts to be consistent in our review of NEPA documentation for LNG projects, we continue to strongly recommend that ichthyoplankton/fisheries assessments not focus on a few indicator species and that such assessments include consideration of the impacts occurring within the discharge plume. We believe that a focus on indicator species can significantly underestimate the true impacts. EPA recommends the USCG include comprehensive ichthyoplankton/fisheries assessments in EISs.

6. Page 4-78, Section 4.2.3.2. The Southern Port Site Alternative is mentioned in this section and a survey of 30 acres apparently was done, separate from a survey of pipeline construction impacts. However, the draft EIS presents no data on the composition of the benthic communities at the proposed and southern site alternative. The survey data within Section 3.2.4 are exclusive to the preferred alternative. Because it is important to determine whether the proposed port site and pipeline route would have greater or fewer impacts on hard bottom benthos than the alternatives, EPA recommends that such data be included in the final EIS, if it is available.

7. Page 4-139, Section 4.11. The draft EIS identifies numerous mitigation measures. A proposed mitigation plan is mentioned for unavoidable adverse impacts to hard bottom marine resources, but the draft EIS notes that it will be developed during the permitting process. EPA recommends that the final EIS include the proposed mitigation plan, thus allowing initial public and agency review to expedite approval of a plan. EPA appreciates MARAD agreeing to require monitoring and mitigation of ichthyoplankton impacts and to develop a plan with interagency input.

AIR QUALITY MODELING AND TRANSPORTATION

1. Executive Summary. Some statements in the draft EIS do not reflect the analyses and information provided in the draft EIS. EPA recommends the following changes based on the content of the draft EIS.

ES-8, Line 39: Since the project will have both short-term and long-term minor impacts, EPA recommends adding "and long-term" to the first sentence.

ES-8, Line 41: EPA recommends adding the following sentence: "Estimated adverse onshore construction impacts appear to be major in the short-term."

ES-8, Line 45: Given that the project impacts are not negligible, EPA recommends clarifying the description of impacts on Class I areas so that the revised sentence reads, "No significant impacts on Class I areas are expected."

ES-9, Line 1: Add the word "operational" to the first sentence. Also, PM_{10} and SO_2 operational impacts have been shown to be greater than the SIL. EPA recommends this sentence be revised.

2. Pages ES-16 and 17. This summary of the cumulative impacts is similar to text on page ES-8, so EPA has the same suggested changes as on page ES-8.

3. Page ES-16

Line 42: The project will have both short-term and long-term minor impacts. Add "and long-term" to the first sentence.

4. Page ES-17

Line 1: Add the following sentence after the parenthetic phase: "Estimated adverse onshore construction impacts appear to be major in the short-term."

Line 5: Add the word "operational" just before "impacts" in the first sentence. Also, PM_{10} and SO_2 operational impacts have been shown to be greater than the SIL. EPA recommends this sentence be revised.

5. Page 3-102, Section 3.7.4. The additional Sarasota-Bradenton wind rose (Figure 3.7-3) shows the maximum frequency of easterly winds with westerly winds as a secondary maximum frequency. EPA recommends adding the following sentence to the end of this paragraph: "This onshore meteorological station likewise shows a maximum wind occurrence from the east, but has a secondary wind direction maximum from the west."

6. Page 102, Section 3.7.4 EPA suggests deleting the word "seasonal" in line 9, because Table 3.7-3 contains monthly and annual values.

7. Page 3-104, Table 3-7-4 The last sub-table provided of $PM_{2.5}$ measured air quality data is incorrectly labeled. Since the provided annual average values are not "24-hour (98^{th} percentile)" as indicated, the label should be revised.

8. Page 4-93, Section 4.7.1 The construction emission values provided in this table are much less than those contained in the earlier draft document. The draft EIS did not provide the bases for the estimated emissions. EPA recommends that the emission calculations be provided in the final EIS appendix or otherwise made available in the USCG project docket.

9. Page 4-93, Section 4.7.1. Table 4.7-3 shows concentrations exceeding the NAAQS and FAAQS for the onshore construction. EPA recommends that detailed modeling information (*e.g.*, modeling procedures, assumptions, emission characteristics, etc.) and explanations be provided in an appendix or otherwise made available on the docket. The text states that results of CALPUFF modeling that included the onshore construction emissions "showed impacts below Class I area Significant Impact Limits (SIL)". The CALPUFF modeling is provided to demonstrate that the onshore construction emissions would not contribute to "long-term impacts and would not be subject to Federal or state permit requirement." If the CALPUFF modeling properly addresses the onshore construction impacts, then it should be provided in lieu of the SCREEN3 modeling. If the CALPUFF modeling addresses impacts at other locations (*e.g.*, Class I areas), it has no relevance to the onshore construction impacts and should be deleted. The SCREEN3

modeling may be too conservative for this assessment. EPA recommends that refined modeling procedures and air quality model be considered for this assessment.

10. Page 4-96, Section 4.7.2. This table's calculation of emissions should reflect the emission factors, the size of the vaporization boilers, and the limitations in maximum SRV and cumulative heat loads. The lbs/hr/boiler and the maximum lbs/hr provided in this table do not appear to reflect the previously provided operational characteristics of up to four 278 MMBtu/hr gas-fired boilers per SRV, maximum of 556 MMBtu/hr per SRV, and cumulative operation of all boilers from all SRVs in the exclusion zone of 1,112 MMBtu/hr. If the information in the table is correct, EPA recommends the differences be explained in the final EIS. In addition, the footnotes to this table should be corrected to reflect these operational conditions. . EPA understands the 1,200 MMscfd is the peak output, not the average daily output.

11. Page 4-96, Section 4.7.2, Table 4.7-5. EPA recommends the emission factors, the size of the power generation engines (two per SRV each rated at 11.4 MW), and the maximum per SRV operation limit of 14.93 MW be used in the calculation of emissions. The lbs/hr/boiler and the maximum lbs/hr provided in this table do not appear to reflect the provided operational characteristics. If the information in the table is correct, EPA recommends the differences be explained in the final EIS. In addition, the footnotes to this table should be corrected to reflect these operational conditions. EPA understands the 1,200 MMscfd is the peak output, not the average daily output.

12. Page 4-98 and 99, Section 4.7.2, Tables 4.7-7, 8, and 9. As with other tables of emissions, EPA recommends the basis and emission calculations be provided. EPA suggests that such information be provided in the final EIS appendix or otherwise made available in the UDCG project docket.

13. Pages 4-99 thru 4-102, Section 4.7.2. Because the text does not define modeling procedures, assumptions, the target values, and other relevant information, the port operations impact modeling information needs improvement. EPA recommends that detailed modeling information (*e.g.*, meteorological data, modeled emissions characteristics, model options, etc.) and explanations be provided in the final EIS appendix or otherwise made available in the USCG project docket.

14. Pages 4-100, Section 4.7.2. Table 4.7-11 shows project emission impacts greater than the Class II SIL. Based on the proposed modeling procedures, EPA recommends that cumulative impact assessments, including other applicable emission sources, be performed for these pollutants to evaluate compliance with applicable NAAQS, FAAQS, and PSD increments. In addition, EPA recommends that cumulative compliance modeling be provided.

15. Page 4-100, Section 4.7.2. Table 4.7-12 provides the modeled ambient air quality impacts from project emissions with the addition of ambient monitored background concentrations. Because it is not appropriate to use only project impacts in this NAAQS and FAAQS compliance comparison, the final EIS should explain the limitations and

purpose of this table. For example, pollutants with project impacts less than the SIL have no cumulative modeling requirement so the addition of the background concentrations to the project impacts serves as an approximation for the NAAQS and FAAQS compliance assessment.

EPA recommends that NAAQS, FAAQS, and PSD increment compliance assessments include cumulative modeling of other applicable emission sources for all pollutants whose project ambient concentrations are equal to or greater that the SIL. This new table should report the controlling concentrations from cumulative compliance modeling for SO_2 and PM_{10}.

The $PM_{2.5}$ NAAQS and FAAQS have not been addressed in the dispersion modeling section text or tables. If the USCG is employing EPA's guidance of using PM_{10} as a surrogate for $PM_{2.5}$ for the draft EIS, the final EIS should note this convention in the text. In addition, the revoked PM_{10} annual NAAQS should be included in the impact tables (Tables 4.7-10, 11, 12, and 13) as a surrogate for the annual $PM_{2.5}$ NAAQS.

16. Page 4-101, Section 4.7.2 The previous comments on Table 4.7-12 are also applicable to this table that addresses the interconnection station. EPA recommends that text state that no cumulative impact modeling is needed, because all modeled project concentrations are less than the SIL. Therefore, the additions of the background concentrations to the project modeled impacts are only provided as an approximation for the assessment of NAAQS and FAAQS compliance.

17. Page 7-3, Section 7. EPA suggests adding the following after the second sentence in the second paragraph: "However, EPA has not subjected GHGs to regulation under the Clean Air Act."

GEOLOGICAL RESOURCES

Page 4-83, Section 4.4. Geological resources are considered and shallow gas is mentioned. Since the proposed port site would occupy designated MMS lease blocks, EPA recommends that the USCG consult the MMS regarding the potential for deep hydrocarbon resources.

NOISE

Page 4-109, Section 4.8.2. Noise emission sources are included in Table 4.8-3, but helicopters are not included. Helicopters may be utilized during construction and operation of the port, depending on the availability of landing pads at the SRVs. EPA recommends the final EIS indicate whether helicopters would be utilized. If so, the USCG should consider adverse impacts from flight route selection on numerous parks, residential areas and other sensitive noise receptors.

ENCLOSURE

U.S. ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL IMPACT STATEMENT (EIS) RATING SYSTEM CRITERIA

EPA has developed a set of criteria for rating Draft EISs. The rating system provides a basis upon which EPA makes recommendations to the lead agency for improving the draft.

RATING THE ENVIRONMENTAL IMPACT OF THE ACTION

LO (Lack of Objections): The review has not identified any potential environmental impacts requiring substantive changes to the preferred alternative. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposed action.

EC (Environmental Concerns): The review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact.

EO (Environmental Objections): The review has identified significant environmental impacts that should be avoided in order to adequately protect the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). The basis for environmental objections can include situations:

1. Where an action might violate or be inconsistent with achievement or maintenance of a national environmental standard;
2. Where the Federal agency violates its own substantive environmental requirements that relate to EPA's areas of jurisdiction
or expertise;
3. Where there is a violation of an EPA policy declaration;
4. Where there are no applicable standards or where applicable standards will not be violated but there is potential for significant environmental degradation that could be corrected by project modification or other feasible alternatives; or
5. Where proceeding with the proposed action would set a precedent for future actions that collectively could result in significant environmental impacts.

EU (Environmentally Unsatisfactory): The review has identified adverse environmental impacts that are of sufficient magnitude that EPA believes the proposed action must not proceed as proposed. The basis for an environmentally unsatisfactory determination consists of identification of environmentally objectionable impacts as defined above and one or more of the following conditions:

1. The potential violation of or inconsistency with a national environmental standard is substantive and/or will occur on along-term basis;
2. There are no applicable standards but the severity, duration, or geographical scope of the impacts associated with the proposed action warrant special attention; or
3. The potential environmental impacts resulting from the proposed action are of national importance because of the threat to national environmental resources or to environmental policies.

RATING THE ADEQUACY OF THE ENVIRONMENTAL IMPACT STATEMENT (EIS)

1 (Adequate): The Draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

2 (Insufficient Information): The Draft EIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the Draft EIS, which could reduce the environmental impacts of the proposal. The identified additional information, data, analyses, or discussion should be included in the Final EIS.

3 (Inadequate): The Draft EIS does not adequately assess the potentially significant environmental impacts of the proposal, or the reviewer has identified new, reasonably available, alternatives, that are outside of the spectrum of alternatives analyzed in the Draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. The identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. This rating indicates EPA's belief that the Draft EIS does not meet the purposes of NEPA and/or the Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised Draft EIS.